



# MMWR



## **Morbidity and Mortality Weekly Report**

Weekly

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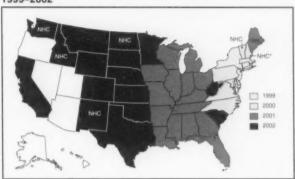
## Provisional Surveillance Summary of the West Nile Virus Epidemic — United States, January–November 2002

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ArboNET is a web-based surveillance data network comprising 54 state and local public health departments and CDC. Specimens from ill humans and animals, dead birds, captive sentinel animals (mostly chickens), wild-caught birds, and mosquitoes were collected by state and local public health departments and other cooperating state and federal agencies and tested for WNV or WNV-specific antibody. Test results, the county and date of specimen collection or illness onset, and other data were entered into state and local public health department databases. Animal data were forwarded regularly to ArboNET through a secure data network; human cases were reported to CDC by telephone or facsimile only.

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FIGURE 1. West Nile virus activity, by state — United States, 1999–2002



\* No human cases.

#### **Human Surveillance**

In 2002, of the 3,389 reported cases of human WNV-associated illness, 2,354 (69%) persons had West Nile meningoencephalitis (WNME), 704 (21%) had West Nile fever (WNF), and 331 (10%) had an unspecified illness. Human cases were reported from 619 counties in 37 states and DC; five states (Illinois [774 cases], Michigan [475], Ohio [409], Louisiana [319], and Indiana [202]) accounted for 2,179 (64%) cases. Four of these five states (Illinois [492], Michigan [437], Ohio [277], and Louisiana [202]) together with Texas [164] accounted for 1,572 (67%) reported WNME cases. Illness onset dates ranged from June 10 to November 4

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- 1136 Additions to Terrorism Preparedness Compendium

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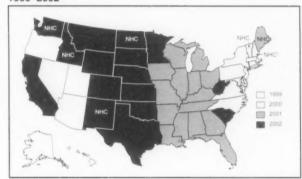
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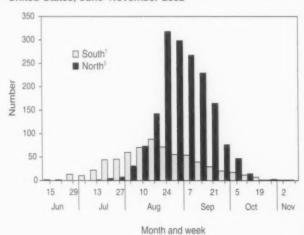
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(Figure 2), and the epidemic peak of WNME cases occurred during the week ending August 24. Illness onset dates ranged from June 10 to November 4 in southern<sup>†</sup> states and from July 10 to October 28 in northern<sup>§</sup> states. The epidemic peak of WNME cases occurred 1 week earlier in southern states (88 cases during the week ending August 17) than in northern states (317 cases during the week ending August 24). For all reported human cases, the median age of infected persons was 55 years (range: 1 month–99 years); for persons with WNME, the median age was 59 years (range: 1 month–99 years); and for persons with WNF, the median age was 48 years (range: 1–93 years) (Table). Of the 2,354 persons with WNME, 199 (9%) died; two (0.3%) of 704 persons with

<sup>†</sup> East South Central region: Alabama, Kentucky, Mississippi, and Tennessee; South Atlantic region: Delaware, the District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia; West South Central region: Arkansas, Louisiana, Oklahoma, and Texas; and Pacific region: California. <sup>§</sup> East North Central region: Illinois, Indiana, Michigan, Ohio, and Wisconsin: Mid-Atlantic region: New Jersey, New York, and Pennsylvania; Mountain region: Colorado, Montana, and Wyoming; New England region: Connecticut, Massachusetts, and Rhode Island; West North Central region: Iowa, Kansas,

Minnesota, Missouri, Nebraska, and South Dakota.

FIGURE 2. Number of human West Nile meningoencephalitis cases, by location and by week and month of illness onset — United States, June–November 2002\*



\* N=2,354 as of November 30.

East South Central region: Alabama, Kentucky, Mississippi, and Tennessee; South Atlantic region: Delaware, the District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia; West South Central region: Arkansas, Louisiana, Oklahoma, and Texas; and Pacific region: California.

East North Central region: Illinois, Indiana, Michigan, Ohio, and Wisconsin; Mid-Atlantic region: New Jersey, New York, and Pennsylvania; Mountain region: Colorado, Montana, and Wyoming; New England region: Connecticut, Massachusetts, and Rhode Island; West North Central region: lowa, Kansas, Minnesota, Missouri, Nebraska, and South Dakota.

TABLE. Number and percentage of reported human cases of West Nile virus disease, by clinical category and age group — United States, 2002\*

	WN	ME†	W	NF <sup>§</sup>	Unsp	ecified
Age group (yrs)	No.	(%)	No.	(%)	No.	(%)
0-9	31	(1)	12	(2)	6	(2)
10-19	58	(3)	18	(3)	5	(2)
20-29	138	(6)	52	(7)	22	(7)
30-39	265	(11)	121	(17)	31	(9)
40-49	355	(15)	184	(26)	76	(23)
50-59	334	(14)	118	(17)	58	(18)
60-69	349	(15)	101	(14)	56	(17)
70-79	489	(21)	67	(10)	41	(12)
80-89	295	(13)	27	(4)	28	(8)
90-99	33	(1)	3	(0)	4	(1)
Unknown	4	(0)	1	(0)	4	(1)
Total	2,354		704		331	
Median age (yrs)	59		48		53	

\* As of November 30.

West Nile meningoencephalitis.

West Nile fever.

WNF died; both were age >80 years. The median age of the 201 decedents was 78 years (range: 24–99 years).

## **Animal Surveillance**

Of 2,289 counties reporting WNV activity, 1,719 (75%) counties in 42 states and DC reported 14,122 dead WNV-infected birds (7,719 crows, 4,948 blue jays, and 1,455 birds of 92 other species). Infected birds were collected from January 10 to November 7, and the peak number of infected birds occurred during the week ending August 10. Of 10,036 tested dead crows, 7,719 (77%) were WNV-positive compared with 6,403 (40%) of 16,132 birds from other species.

In 2002, a total of 9,144 (99.9%) of 9,157 reported non-human mammal cases occurred in equines, and 13 occurred in other species (dogs [three], squirrels [eight], and unspecified species [two]). Cases were reported from 1,374 counties in 38 states, with illness onset dates ranging from January 3 to November 8. Six states (Illinois [1,116 cases], Texas [1,050], Minnesota [945], Indiana [704], Kansas [675], and South Dakota [653]) accounted for 56% of reported nonhuman mammal cases.

A limited number of counties and states tested mosquitoes (639 counties in 37 states and DC), wild-caught birds (65 counties in eight states), and sentinel chickens (92 counties in eight states) as part of WNV surveillance. In 2002, approximately 1.3 million mosquitoes of 88 species were tested. WNV was detected in 4,943 pools (representing 26 species) from 315 counties in 28 states and DC. Culex mosquitoes (Cx. pipiens, Cx. restuans, Cx. salinarius, Cx. quinquefasciatus, and Cx. tarsalis) accounted for 2,717 (55%)

WNV-positive pools. WNV was reported for the first time in seven mosquito species (Aedes aegypti, Anopheles walkeri, Cx. erraticus, Cx. tarsalis, Cx. territans, Culiseta inornata, and Psorophora ciliata). Since 1999, a total of 36 WNV-infected mosquito species have been reported to ArboNET. In 2002, a total of 144 seropositive wild-caught birds were reported from 25 counties in four states (Indiana, Kansas, Louisiana, and Ohio), and 366 seroconverting captive sentinel birds were reported from 47 counties in seven states (Florida, Iowa, Nebraska, New York, North Carolina, Pennsylvania, and Texas).

## First Indicators of WNV Activity

Among 2,289 counties reporting WNV activity in 2002, the first indicator of activity was a WNV-infected dead bird in 1,420 (62%) counties, an equine case in 660 (29%) counties, a human case in 84 (4%) counties, a seroconverting sentinel bird in 18 (0.8%) counties, an infected mosquito pool in 77 (3%) counties, and a seropositive wild-caught bird in six (0.2%) counties. In 24 counties, WNV activity was first detected on the same date by at least two surveillance mechanisms. In 531 (86%) of 619 counties reporting human cases, the first human illness onset was preceded by reports of a dead WNV-infected bird, infected equine, seroconverting sentinel chicken, or infected mosquito pool by a median of 33 days (range: 1–252 days). Of the 2,289 counties with WNV activity, 1,670 (73%) counties detected enzootic WNV activity but no human infections.

**Reported by:** CC Chow, MD, SP Montgomery, DVM, DR O'Leary, DVM, RS Nasci, PhD, GL Campbell, MD, AM Kipp, JA Lehman, K Olson, P Collins, AA Marfin, MD, Div of Vector-Borne Infectious Diseases, National Center for Infectious Diseases, CDC.

Editorial Note: The 2002 WNV epidemic in the United States was the largest arboviral meningoencephalitis epidemic documented in the western hemisphere and the largest reported WNME epidemic. Epizootic and epidemic activity was most intense in the central United States, especially the Great Lakes region, and extended to the west coast. One human case reported in a Los Angeles County, California, resident with no known travel history (and with no other WNV activity found statewide) and a report of a WNV-infected horse in Island County, Washington, indicate the complete transcontinental movement of WNV within 3 years. In 2002, Canadian health authorities also documented WNV activity in five provinces (Manitoba, Nova Scotia, Ontario, Quebec, and Saskatchewan) (2). The 2002 WNV epidemic included the first documented cases of person-to-person WNV transmission through organ transplantation, blood and blood product transfusion, and possibly breastfeeding (3,4). Also in 2002, intrauterine infection was reported (5), and a poliomyelitis-like syndrome was first recognized in the United States among some WNME patients with acute flaccid paralysis (AFP) (6).

Nationally, the epidemic peak of human WNV-associated illness during 2002 occurred in late August; human cases in southern states preceded those in northern states by approximately 1 month. In 2002, human cases also were reported from the New York City metropolitan area for the fourth consecutive year. This prolonged and continued widespread transmission to humans, including in areas of previous epidemic activity, underscores the importance of maintaining human surveillance programs from early June through November and the need to consider WNV disease in the differential diagnosis of encephalitis, meningitis, AFP, and nonspecific febrile illness before and after the late summer months in which arboviral outbreaks traditionally occur.

The 2002 WNV epidemic is similar to the 1975 St. Louis encephalitis (SLE) epidemic, which produced approximately 2,100 reported human illnesses and 170 fatalities (casefatality ratio: 8%), primarily in the Mississippi and Ohio River basins (7). WNV and SLE virus are closely related; both are transmitted primarily by *Culex* mosquitoes and amplified in birds. However, SLE virus is not an avian or equine pathogen.

In 2002, the proportion of human cases reported with WNF was greater than in previous years. This change probably reflects increased testing and diagnosis of WNV infection in persons with milder illness. WNF patients tend to be younger than patients with WNME (8). The somewhat lower median age among persons with WNME reported in 2002 compared with those reported during 1999–2001 (59 years versus 66 years) could reflect the incorrect classification of some WNF cases as WNME cases. The median age among persons with fatal WNME reported in 2002 was similar to that in previous years. Although older persons are at higher risk for WNME and death, persons of any age might develop severe neurologic disease.

Bird- and horse-based surveillance are important tools for monitoring the geographic spread of WNV and for signaling WNV activity in an area before the recognition of human illnesses. The number of counties reporting WNV-infected dead birds in 2002 was five times greater than that in 2001, and the number of reported WNV-infected dead birds doubled (1). In 2002, crows, blue jays, and other members of the family Corvidae accounted for 90% of WNV-infected birds, and crows had the highest rate of WNV infection. State and local health department surveillance programs should continue to emphasize the collection and testing of dead corvids. Because noncorvid bird species were the first indicator of WNV

activity in 144 (6%) counties, surveillance programs should include these species when possible.

From 2001 to 2002, equine cases reported to ArboNET increased 12-fold, and equine transmission occurred over a longer season and in nine new states (1). In 2002, the geographic and temporal distribution of equine cases closely paralleled the human epidemic in the midwestern and north-central states, suggesting that horses, although unlikely to contribute to the transmission cycle for WNV (9), might be useful indicators of increased human risk in those areas.

The three Culex species that produced the most WNV-positive pools during 2002, Cx. pipiens, Cx. quinquefasciatus, and Cx. restuans, are among the most important WNV epizootic or epidemic vectors in the United States. During 1999–2002, an additional 33 mosquito species also were found infected with WNV. These include Cx. nigripalpus, the principal epidemic vector of SLE in Florida, and Cx. tarsalis, an important vector of SLE and western equine encephalitis in the western states. Although other species (e.g., Ochlerotatus triseriatus, Ae. albopictus, Ae. aegypti) might contribute to human WNV transmission, control of Culex mosquitoes continues to be the most important strategy to reduce the risk for WNV transmission to humans.

The ArboNET data summarized in this report probably underestimate the actual geographic distribution and intensity of WNV virus transmission in the United States for at least three reasons. First, although dead bird surveillance is important in monitoring WNV activity, only 27% of reported dead birds in 2002 were submitted for testing, compared with 50% in 2001. Many state and local health departments were overwhelmed by the large numbers of samples submitted for WNV testing and discontinued dead bird testing during the transmission season. Second, because data provided by the 54 ArboNET coordinators are derived primarily from local health unit surveillance efforts, which vary according to local capacity and priorities, some animal and human surveillance data might not yet be reported and confirmed. Finally, states might vary in their interpretation of and adherence to the national surveillance case definition of arboviral encephalitis/ meningitis, and no standard national case definition for WNF

The epidemic of 2002 underscores the continued need for intensive ecologic surveillance to detect early-season WNV activity. To decrease the risk for human WNV infection, the coordinated and phased public health response to detection of WNV activity in an area should include intensified mosquito-control activities that reduce the avian-mosquito amplification cycle. Prevention activities should continue to include 1) public education programs urging residential source

reduction and personal protective measures to reduce mosquito exposure; 2) development of long-term, community-level, integrated mosquito surveillance and control programs (10); and 3) high-priority emphasis on the control of *Culex* mosquitoes, especially in urban and suburban areas.

## Acknowledgments

This report is based on data prepared by ArboNET surveillance coordinators in local and state health departments and ArboNET technical staff, Div of Vector-Borne Infectious Diseases, National Center for Infectious Diseases, CDC.

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## Laboratory-Acquired West Nile Virus Infections — United States, 2002

West Nile virus (WNV), a mosquito-borne flavivirus introduced recently to North America, is a human, equine, and avian neuropathogen (1). The majority of human infections with WNV are mosquito-borne; however, laboratory-acquired infections with WNV and other arboviruses also occur (2–4). This report summarizes two recent cases of WNV infection in laboratory workers without other known risk factors who acquired infection through percutaneous inoculation. Laboratory workers handling fluids or tissues known or suspected to be WNV-infected should minimize their risk for exposure and should report injuries and illnesses of suspected occupational origin to their supervisor.

## **Case Reports**

Case 1. In August 2002, a microbiologist working in a U.S. laboratory was performing a necropsy on a blue jay submitted as part of a state's WNV surveillance program. The microbiologist worked in a Class II laminar flow biosafety cabinet under biosafety level 2 (BSL-2) conditions (5) and lacerated a thumb while using a scalpel to remove the bird's brain. The wound, a superficial cut over the dorsal surface of the interphalangeal joint, was cleansed and bandaged. Four days after injury, the microbiologist had acute symptoms of headache, myalgias, and malaise followed by chills, sweats, dysesthesias, recurring hot flashes, swelling of the postauricular lymph nodes, and anorexia. Two days later, the microbiologist noted a maculopapular rash that began on the face; extended to the trunk, arms, and legs during the next 3 days; and then disappeared gradually. The microbiologist continued to work during illness and had intermittent chills, sweats, dysesthesias, and hot flashes for approximately 1 week before recovering fully. On the third day of illness (7 days post-injury), the microbiologist sought medical care from a physician and reported no history of recent mosquito bites, prolonged outdoor activities, or recent blood transfusion. On physical examination, the patient was afebrile with erythema on the cheeks, but the examination was otherwise normal. Serial serum samples taken from the patient and submitted to CDC for WNV serologic testing revealed evidence of an acute WNV infection. The initial specimen (collected 3 days after illness onset) was negative for WNV-specific IgM or neutralizing antibodies. Specimens collected 13 and 21 days after illness onset both were positive for WNV-specific IgM antibody; the latter specimen was positive for WNV-specific neutralizing antibody, with a titer of 160; the specimen collected 13 days after illness onset was not tested by neutralization. The brain of the blue jay tested positive at CDC for WNV RNA by real-time polymerase chain reaction (TaqMan®) using two primer/probe sets.

Case 2. In October 2002, a microbiologist working in a U.S. laboratory who was harvesting WNV-infected mouse brains in a Class II laminar flow biosafety cabinet under BSL-3 conditions (5) punctured a finger with a contaminated needle. The wound was cleansed and bandaged. The microbiologist's body temperature was measured several times each day, and 3 days after injury, the microbiologist had upper respiratory infection (URI) symptoms without fever or chills. The next day, URI symptoms continued with malaise, fatigue, chills, and a low-grade fever (100.9° F [38.3° C]). That evening, the patient took an over-the-counter cold medication. The next morning, the patient awoke without fever or chills but with continued URI symptoms and a

dry cough and hoarseness that persisted for >1 week, although the patient missed only 1 day of work. At no time did the patient notice a skin rash, an increase in the usual degree of joint pain, or a stiff neck. The patient reported no history of recent mosquito bites, prolonged outdoor activities, or recent blood transfusion. The patient had a history of exposure to multiple flaviviruses or flavivirus antigens (i.e., had had dengue fever and had received yellow fever and Japanese encephalitis vaccines). Serial serum samples taken and submitted to CDC for WNV serologic testing revealed evidence of an acute WNV infection. WNV-specific IgM antibody was absent from both the initial specimens (1 day after injury and 3 days before fever onset) and a specimen collected 2 days after fever onset. Anti-flaviviral IgG antibody was detected in both of these specimens by enzyme-linked immunosorbent assay (ELISA), but no change in the intensity of IgG activity was observed. A serum specimen collected 10 days after illness onset was positive for WNV-specific IgM antibody and showed a sharp increase in the intensity of anti-flaviviral IgG antibody by ELISA. Neutralizing antibody test results are pending.

Reported by: G Campbell, MD, R Lanciotti, PhD, Div of Vector-Borne Infectious Diseases, National Center for Infectious Diseases; B Bernard, MD, H Lu, MD, Div of Surveillance, Hazard Evaluations and Field Studies, National Institute for Occupational Safety and Health, CDC.

Editorial Note: This report documents two recent laboratory-acquired WNV infections in the United States. On the basis of the timing of the events described, WNV infection of the two microbiologists resulted from exposure through percutaneous inoculation in laboratories. Illnesses in both laboratory workers were mild and self-limited, which is typical of illnesses in WNV-infected persons (1). These cases confirm that laboratory workers are at risk for occupationally acquired WNV infection (2–4), including West Nile meningoencephalitis.

In the second case, although the presence of heterologous flavivirus antibodies did not prevent WNV infection, these heterologous antibodies might have provided some degree of cross-protection that moderated the clinical severity of the infection. Laboratory workers should not assume that immunity to other flaviviruses will protect them from WNV infection or its more severe clinical consequences (6).

During the 2002 WNV epidemic and epizootic in the United States (7), the number of laboratories and laboratory workers involved in arboviral diagnostic and reference activities has increased substantially. Therefore, the potential for laboratory-acquired WNV infections has increased. Laboratory-acquired arboviral infections are most likely

underreported, and few recent data are available (3,4). In 2001, a suspected case of laboratory-acquired WNV infection was reported in New York (8). Laboratory workers involved in necropsies or other procedures involving materials potentially infected with WNV should use every precaution to minimize their risk for exposure to fluids or tissues during handling, including standard droplet and contact precautions; using and disposing of needles, scalpels, and other sharp instruments safely; and minimizing the generation of aerosols.

The Subcommittee on Arbovirus Laboratory Safety of the American Committee on Arthropod-Borne Viruses recommends four biosafety levels for laboratories that handle arboviruses, comprising combinations of laboratory practices and techniques, safety equipment, and laboratory facilities (2). Laboratory investigations that involve handling of live WNV should be conducted under BSL-3 containment (2,9). However, because of concerns that strict BSL-3 containment for handling human or animal specimens in the clinical diagnostic setting would severely limit the number of laboratories capable of detecting WNV infections in a timely manner, BSL-2 facilities can, with modest modification of their procedures, achieve an acceptable level of safety for the conduct of certain routine diagnostic procedures involving live WNV, including bird necropsies (9,10).

Participating laboratory employees should receive training that reinforces awareness of potential occupational hazards and risks and that stresses the importance of timely reporting of all injuries and illnesses of suspected occupational origin. After unintentional laboratory incidents of potential exposure to WNV-infected materials, an exposed person should cleanse any wound or exposed skin immediately and thoroughly, receive first aid, and then report the incident to a supervisor, as was done in the two cases described in this report. No antivirals or other drugs are known to be effective in the prevention or treatment of WNV infection. A baseline serum specimen should be obtained and stored. If the worker has an illness within the 2 weeks after the exposure, prompt medical evaluation, consultation with public health authorities, and collection of additional serum samples for virologic and serologic analysis are recommended.

CDC encourages the reporting of all laboratory-acquired arboviral infections to local, state, and federal public health authorities, regardless of clinical manifestations. Additional information and consultation about WNV are available from CDC's Division of Vector-Borne Infectious Diseases, telephone 970-221-6400 or 970-266-3592 or at http://www.cdc.gov/ncidod/dvbid/westnile.

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## Intrauterine West Nile Virus Infection — New York, 2002

West Nile virus (WNV), a mosquito-borne flavivirus and human neuropathogen, is epidemic in the United States (1). In 2002, newly recognized mechanisms of person-to-person WNV transmission were described, including possible transmission from mother to infant through breast milk (2,3). WNV has not been previously associated with intrauterine infection or adverse birth outcomes. This report describes a case of transplacental WNV transmission. Pregnant women should take precautions to reduce their risk for WNV or other arboviral infection and should undergo diagnostic testing when clinically appropriate.

On August 29, 2002, a previously healthy woman aged 20 years in the estimated 27th week of pregnancy was admitted to a New York hospital with a 2-day history of fever, severe headache, blurred vision, abdominal and back pain, and vomiting. On examination, she had a fever of 102.7° F (39.3° C); the fetal heart rate was elevated. A computerized tomographic scan of the patient's head, a fetal sonogram, and routine analyses of blood and amniocentesis fluid were normal. A urine

culture grew *Proteus mirabilis* and *Escherichia coli*. Intravenous antibiotics were administered.

Four days after admission, the fever had resolved, and the patient had pain and weakness of the legs. Neurologic examination indicated symmetric weakness of the legs and hyporeflexia of the legs and arms. No cranial nerve abnormalities were noted. Electromyelography (EMG) was not completed. On September 14, despite persistent lower extremity paresis, she left the hospital against medical advice.

On September 16, the patient was readmitted following a fall. She was afebrile, but physical examination revealed weakness in both legs. Fetal monitoring results were normal. Serum was positive for IgG antibodies to rubella virus and herpes simplex virus (HSV), and laboratory tests showed no evidence of syphilis or infection with human immunodeficiency virus (HIV). Serum also was positive for flavivirus IgM and IgG by immunofluorescence assay. Additional serum and CSF specimens were obtained during the week ending October 12. Serum was positive for WNV-specific IgM antibodies. CSF analysis indicated lymphocytic pleocytosis (11 white blood cells/mm<sup>3</sup>, 87% lymphocytes, 8% monocytes, and 5% neutrophils), elevated protein (63 mg/dL), and the presence of WNV-specific IgM antibodies. Polymerase chain reaction (PCR) tests of CSF for WNV, enterovirus (EV), and HSV were negative. EMG studies indicated widespread involvement of the lower motor neurons or their proximal axons, with the legs affected more severely than the arms. A diagnosis of meningoencephalitis was made.

Approximately 5 weeks later, the patient delivered a live infant (estimated gestational age: 38 weeks). Serum obtained from the mother at the time of birth was positive for WNVspecific IgM and neutralizing antibodies. The infant's birth weight and general clinical examination were normal. An ophthalmologic examination revealed bilateral chorioretinitis, and MRI of the brain indicated severe cerebral abnormalities, including severe bilateral white-matter loss in the temporal and occipital lobes and cystic change in one temporal lobe consistent with focal cerebral destruction. Cord blood and infant heel-stick blood samples were positive for WNVspecific IgM and neutralizing antibodies. CSF was WNVspecific IgM antibody-positive but was contaminated with red blood cells. The presence of WNV-specific IgM antibody in the infant's serum and CSF confirmed intrauterine infection with WNV. Serum was cytomegalovirus (CMV) IgM antibody-negative but IgG-positive, and serologic tests were negative for lymphocytic choriomeningitis virus infection and toxoplasmosis. PCR tests of CSF for WNV, EV, and HSV were negative. Urine CMV culture was negative. Gross and histopathologic examinations of the placenta, umbilical cord,

and amniotic membranes were normal. The placenta was WNV PCR-positive at one of two reference laboratories. The umbilical cord tissue was WNV-positive and -equivocal by PCR, respectively, at the same two laboratories. Viral cultures of umbilical cord tissue were negative; viral cultures of CSF and placenta are pending.

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Editorial Note: On the basis of the presence of WNV-specific IgM in the mother and infant, this is the first report of transplacental transmission of WNV in humans. Intrauterine infections with Japanese encephalitis and dengue, two mosquito-borne flaviviruses closely related to WNV, have been associated with spontaneous abortion and severe dengue fever in the infant, respectively (4–7). Although the single case reported here demonstrates intrauterine WNV infection in an infant who had evidence of congenital abnormalities, it does not prove a causal relation between such an infection and these abnormalities.

Pregnant women should take precautions to reduce their risk for WNV and other arboviral infections by avoiding mosquitoes and by using protective clothing and repellents containing N,N-diethyl-m-toluamide (DEET) per manufacturers' directions. When WNV transmission is occurring in an area, pregnant women who have an illness that is clinically consistent with acute WNV infection should undergo appropriate diagnostic testing. Screening of asymptomatic pregnant women or newborns for evidence of WNV infection is not recommended because no specific treatment for this infection is available, and because WNV IgM antibody might persist for more than a year, tests of a single serum sample cannot accurately determine the timing of infection (8). CDC has initiated a voluntary registry to monitor birth outcomes among WNV-infected women. In the event of an adverse birth outcome, maternal and fetal or newborn samples should be submitted to a state public health laboratory or CDC for testing. Additional information and consultation about WNV are available from CDC's Division of Vector-Borne Infectious Diseases, telephone 970-221-6400 and 970-266-3592 or at http://www.cdc.gov/ncidod/dvbid/westnile.

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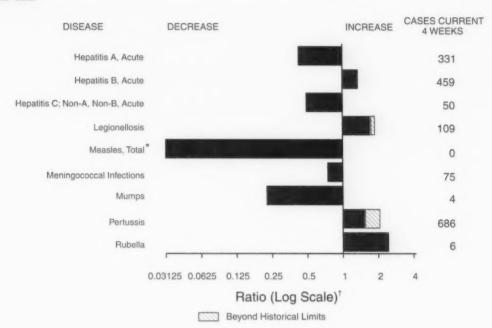
## Notice to Readers

## Additions to Terrorism Preparedness Compendium

To help readers locate information about terrorism preparedness, MMWR has established a compendium of terrorism-related recommendations and reports drawn from the MMWR archives. The recommendations and reports listed below have been added to the compendium and describe the last cases of naturally occurring smallpox, previous recommendations regarding smallpox vaccination, and adverse events related to the smallpox vaccine. The compendium is available at http://www.cdc.gov/mmwr.

- Recommendation of the Immunization Practices Advisory Committee: smallpox vaccine (1985).
- Investigation of a smallpox rumor Mexico (1985).
- Contact spread of vaccinia from a National Guard vaccinee — Wisconsin (1985).
- Contact spread of vaccinia from a recently vaccinated marine — Louisiana (1984).
- Orthogox surveillance: post-smallpox eradication policy
- Vaccinia outbreak Nevada (1983).
- Notice to readers: smallpox vaccine no longer available for civilians United States (1983).
- Disseminated vaccinia infection in a college student Tennessee (1982).
- Vaccinia necrosum after smallpox vaccination Michigan (1982).
- Smallpox surveillance worldwide (1978).
- Quarantine measures: smallpox Stockholm, Sweden (1963).

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals ending December 14, 2002. with historical data



\* No measles cases were reported for the current 4-week period yielding a ratio for week 50 of zero (0).

† Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending December 14, 2002 (50th Week)\*

		Cum. 2002	Cum. 2001		Cum. 2002	Cum. 2001
Anthrax		2	22	Encephalitis: West Nile <sup>†</sup>	1,750	57
Botulism:	foodborne	13	33	Hansen disease (leprosy)†	69	70
	infant	52	89	Hantavirus pulmonary syndrome <sup>†</sup>	16	8
	other (wound & unspecified)	28	18	Hemolytic uremic syndrome, postdiarrheal <sup>†</sup>	183	183
Brucellosis†		74	124	HIV infection, pediatric19	163	190
Chancroid		67	36	Plague	1	2
Cholera		5	5	Poliomyelitis, paralytic		
Cyclosporiasi	s <sup>†</sup>	155	143	Psittacosis†	17	24
Diphtheria		1	2	Q fever <sup>†</sup>	48	23
Ehrlichiosis:	human granulocytic (HGE)†	363	219	Rabies, human	2	1
	human monocytic (HME) <sup>†</sup>	164	115	Streptococcal toxic-shock syndrome <sup>†</sup>	84	75
	other and unspecified	12	6	Tetanus	21	32
Encephalitis:	California serogroup viral <sup>†</sup>	131	116	Toxic-shock syndrome	109	115
	eastern equine <sup>†</sup>	7	8	Trichinosis	13	21
	Powassan†	1	-	Tularemia†	58	128
	St. Louis†	15	78	Yellow fever	1	
	western equine <sup>†</sup>	3				

-: No reported cases.

Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

Not notifiable in all states.

Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP). Last update November 24, 2002.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending December 14, 2002, and December 15, 2001

							Esch	erichia coli, E	nterohemorrhag	
		DS	Chlan	nydiat	Cryptos	poridiosis	015	57:H7		in Positive, p non-O157
Reporting Area	Cum. 2002 <sup>9</sup>	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
INITED STATES	38,878	38,400	741,661	747,507	2,679	3,642	3,459	3,140	155	158
MEW ENGLAND Maine I.H. ft. Mass. R.I. Conn.	1,488 28 35 12 754 97 562	1,390 44 37 15 694 93 507	26,266 1,715 1,529 902 10,483 2,695 8,942	23,466 1,299 1,330 622 9,936 2,832 7,447	174 11 29 33 62 21	145 18 16 33 53 8	256 38 32 14 113 14 45	243 27 36 14 113 16 37	32 5 1 9	41 1 3 1 10 1 25
MID. ATLANTIC Upstate N.Y. N.Y. City N.J.	8,998 946 5,290 1,304 1,458	10,582 1,296 6,169 1,584 1,533	81,719 16,142 25,921 11,343 28,313	83,696 14,648 28,649 14,773 25,626	334 138 124 11 61	343 107 118 24 94	244 177 16 51 N	233 146 16 71 N	1	*
E.N. CENTRAL Ohio nd. II. Wich. Wis.	4,221 766 482 2,094 701 178	2,796 531 342 1,251 497 175	129,375 30,399 16,427 35,843 30,992 15,714	138,203 36,537 14,805 41,794 29,121 15,946	869 120 56 88 122 483	1,565 175 81 481 180 648	828 151 76 171 135 295	795 224 84 169 99 219	19 15 1	12 10
W.N. CENTRAL Minn. owa Wo. N. Dak. S. Dak. Nebr. Kans.	716 149 85 337 3 10 64 68	805 130 86 394 2 23 77	40,710 9,350 5,144 14,560 801 2,128 2,456 6,271	38,067 8,002 4,847 13,519 999 1,736 3,100 5,864	406 213 47 32 20 31 47 16	520 179 81 51 13 8 184	500 164 122 69 17 40 54	503 209 79 66 19 43 60 27	38 33 N	40 30 N 3 6
S. ATLANTIC Del. Md. D.C. Va. W. Va. N.C. S.C. Ga. Fila.	11,487 180 1,676 769 816 80 971 792 1,536 4,667	11,422 230 1,685 777 954 93 817 633 1,520 4,713	144,051 2,555 16,071 3,251 16,646 2,203 23,892 11,311 29,781 38,341	143,218 2,683 14,756 3,169 17,377 2,274 21,040 14,842 31,088 35,989	307 3 21 5 27 2 36 6 106	368 6 39 13 26 2 30 7 157 88	406 9 26 1 63 9 191 5 40 62	247 4 29 50 10 57 23 44 30	10 9 20	38 1 - 6 - 10 21
E.S. CENTRAL Ky. Tenn. Ala. Miss.	1,844 288 764 388 404	1,646 315 519 415 397	46,348 8,454 15,203 12,654 10,037	48,055 8,634 14,084 13,836 11,501	117 9 54 44 10	51 5 14 17 15	108 30 46 21	138 64 44 18 12		1
W.S. CENTRAL Ark. La. Okla. Tex.	3,867 223 905 181 2,558	3,801 188 795 214 2,604	102,895 6,865 18,084 10,484 67,462	102,732 7,121 17,452 10,312 67,847	36 8 6 16 6	127 9 7 15 96	74 12 2 23 37	215 16 7 34 158		
MOUNTAIN Mont. Idaho Wyo. Colo. N. Mex. Ariz. Utah Nev.	1,319 11 28 8 286 81 559 63 283	1,291 15 19 4 281 141 489 107 235	46,252 2,201 2,420 899 13,115 5,870 14,199 2,680 4,868	44,893 1,846 1,945 800 12,865 5,940 13,880 2,873 4,744	156 6 29 9 57 19 17	236 37 22 7 42 30 9 82 7	357 31 50 15 100 12 34 87 28	291 20 75 10 87 16 30 35	19 8 2 5 3 1 1	20 5 2 7 6
PACIFIC Wash. Oreg. Calif. Alaska Hawaii	4,937 449 311 4,039 30 108	4,667 473 215 3,865 19 95	124,045 14,327 6,575 95,411 3,500 4,232	125,177 13,094 7,014 98,596 2,571 3,902	280 43 40 194 1	287 U 56 227 1 3	686 144 223 270 8 41	475 129 85 238 4 19	8	6
Guam P.R. V.I. Amer. Samoa C.N.M.I.	1,045 74 U	11 1,111 11 U	1,997 125 U	384 2,635 141 U		Ü	N U	N 2	Û	

N: Not notifiable. U: Unavailable. :: No reported cases. C.N.M.I.: Commonwealth of Northern Mariana Islands.

\* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

\* Chlamydia refers to genital infections caused by C. trachomatis.

\* Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update November 24, 2002.

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending December 14, 2002, and December 15, 2001

		herichia coli ohemorrhagic					Haemophilu Invi	us influenzae, asive	
	Shiga	Toxin Positive, Serogrouped				All	Ages,	Age <5	Years
	Cum.	Cum.	Giardiasis Cum.	Cum.	orrhea	All S	erotypes	E	
Reporting Area	2002	2001	2002	2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum.
UNITED STATES	37	19	16,430	314,111	345,837	1,405	1,415	26	2001
NEW ENGLAND Maine	1	1	1,604	7,346	6,685	123	108	20	
N.H.	-	•	209 43	140	141	2	2		1
Vt.	1	1	143	121 93	172 74	10	7	*	
Mass. R.I.		•	810	3,130	3,060	50	41		-
Conn.			156 243	906	812	10	7		1
MID. ATLANTIC		3		2,956	2,426	44	47		
Upstate N.Y.			3,552 1,199	37,651 8,332	41,997	249	218	6	3
N.Y. City N.J.	•		1,278	10,903	8,577 12,191	111 63	76	2	
Pa.			350	6,511	8,342	48	57 46		*
E.N. CENTRAL	40	3	725	11,905	12,887	27	39	4	3
Ohio	13 12	7 7	3,172	63,444	72,563	201	264	4	2
Ind.			934	17,173 7,104	20,487	77	74		1
III. Mich.		0	736	19.060	6,737 22,984	42 58	46 98	2	
Wis.	1		890	14,250	16,470	16	13	2	
W.N. CENTRAL	4		612	5,857	5,885	8	33	-	1
Minn.	4	4	1,971 791	15,903	16,342	69	74	1	1
lowa			304	2,863 1,229	2,585 1,263	47	42	1	
Mo. N. Dak.	N	N	469	8,235	8,426	12	20		-
S. Dak.	2	4	28	47	54	-	7		
Nebr.			73 133	260 713	275				
Kans.	2		173	2,556	1,124 2,615	1 8	3 2	*	1
S. ATLANTIC	1		2,705	81,103	88,900	330			
Del. Md.	*		51	1,526	1,652	330	351	4	1
D.C.		*	110	8,604	8,942	85	86	2	
Va.			42 319	2,619 9,444	2,786 10,453	-			
W. Va. N.C.	1		59	875	699	32 15	28 16	-	2
S.C.	2		404	15,145	15,872	31	46		1
Ga.		2	121 747	6,864 16,361	10,560	13	8		
Fla.		-	1,256	19,665	17,295 20,641	68 86	98 69	-	-
E.S. CENTRAL	8	3	375	26,643	31,272	64		2	*
Ky. Tenn.	8	3		3.644	3,485	6	75 2	1	~
Ala.			175 200	8,880	9,420	33	44		-
Miss.			200	8,262 5,857	10,811 7,556	16	27	1	
W.S. CENTRAL	4		240	46,130		9	2		~
Ark. La.			165	4,341	50,493 4,484	59	56 2	2	2
Okla.		*	5	11,176	12,030	9	9		-
Tex.	4		70	4,519	4,667	45	43		
MOUNTAIN	6	1	1.613	26,094	29,312	4	2	2	2
Mont.			1,613	10.176 108	10,058 101	184	142	5	8
daho Wyo.	-	~	130	93	74	2	2		
Colo.	6	1	29	59	76	1	1		
N. Mex.	-		559 135	3,242 1,226	3,091	34	38		*
Ariz, Jtah			192	3,566	993 3.785	26 91	26 54	-	1
Nev.		*	321	277	210	18	9	3	4
PACIFIC			155	1,605	1,728	12	12	1	2
Wash.	-		1,198	25,715	27,527	126	127	3	4
Oreg.			398 439	2,794 857	2,862 1,089	4	7	2	
Calif. Alaska			168	20,773	22,569	62 22	36 55	1	4
lawaii			106	580	421	2	6		4
Buam			87	711	586	36	23		-
P.R.	-		38	200	47				
(.l.			30	292 31	575 35	1	2	*	
mer. Samoa .N.M.I.	U	U	U	U	U	û	Ü	Û	ű
: Not notifiable	Li: Unavailable	U	1	14	U		Ŭ	-	Ü

N: Not notifiable. U: Unavailable. -: No reported cases.

\* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending December 14, 2002, and December 15, 2001 (50th Week)\*

	Ha	emophilus in	fluenzae, Invasi	ve						
		Age <	5 Years		1	н	epatitis (Viral,	Acute), By Ty	pe	
	Non-Ser		Unknown S	erotype		4	T	В	C; Non-A	, Non-B
	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.
eporting Area	2002	2001	15	2001	7.859	9,959	2002	2001	2002	2001
			15	20			6,492	6,988	3,395	3,724
EW ENGLAND laine	14	15	-		280	715 11	267 14	138	23	33
I.H.		1	-	-	11	18	22	16		
t. lass.	7	7			3 136	16 369	5 129	5 37	13	7
R.I.	,	-			32	72	30	28	9	26
Conn.	7	7		-	90	229	67	47	-	-
MID. ATLANTIC	28	37		3	1,038	1,250	1,541	1,330	1,792	1,297
Jpstate N.Y.	12	10	*	1	178	265	138	125	69	29
V.Y. City V.J.	8 5	13	-	-	505 152	435 278	817 361	628 277	1,687	1,184
a.	3	8	*	2	203	272	225	300	36	84
N. CENTRAL	36	39	1	2	1,031	1,170	678	907	105	157
Ohio	9	13	1	-	323	246	116	90	4	9
nd. II.	8 12	6 14		1	46	96	56	48	12	1
Aich.	5	14	-	1	262 222	426 323	146 317	151 573	13 84	12 135
Vis.	2	6	*	-	178	79	43	45	4	100
V.N. CENTRAL	7	6	3	6	295	380	219	218	731	1,096
Minn.	6	4	1	2	42	41	35	31	1	12
owa Mo.	-	1	2	4	80 81	35 84	19	22 118	1	1 060
V. Dak.	-	1	-		3	3	115 5	2	710	1,068
B. Dak.	-			*	3	3	2	1	1	-
Vebr. Kans.	1	1		*	17 69	36 178	22 21	30 14	13	8
S. ATLANTIC	42	40	2	-					5	8
Del.	42	46	2	7	2,243	2,500	1,490	1,508 29	189 5	106 11
Md.	4	8		2	293	278	120	136	8	9
D.C.	-	-			75	60	21	13		
Va. W. Va.	5	5	1	1	152 22	133 27	193	171	16	-
N.C.	3	2		4	203	236	18 216	25 208	3 26	9 21
S.C.	2	1			62	73	117	29	4	6
Ga. Fla.	12 15	20	1		386 1.037	908 769	277 521	418	38	-
E.S. CENTRAL								479	89	50
Ky.	15 2	13	1	4	250 41	401 127	360 50	469 54	191	187
Tenn.	8	7		2	113	164	129	240	33	64
Ala.	3	5	1	1	39	73	101	86	10	4
Miss.	2	1			57	37	80	89	144	108
W.S. CENTRAL Ark.	14	9	*		578	802	578	810	198	664
La.	2	2			65 68	69 86	92 98	99 119	9 67	13 149
Okla.	10	6	*		49	110	44	97	5	4
Tex.	2	*	*	*	396	537	344	495	117	498
MOUNTAIN	50	25	7	1	536	704	582	458	61	55
Mont. Idaho	1				13 30	12 55	10	3 11	1	1 2
Wyo.		-		*	3	7	17	3	5	8
Colo.	3	3			74	87	75	102	15	9
N. Mex. Ariz.	6 31	11	5	1	29 275	40 370	144 204	133	1 4	12
Utah	5	3			64	66	60	135 23	4	9
Nev.	4	*	1	*	48	67	65	48	30	11
PACIFIC	25	44	1	5	1,608	2,037	777	1,150	105	129
Wash. Oreg.	2 5	4 7	*	2	145	152	68	141	25	23
Calif.	13	31	1	1	66 1,385	101 1,754	120 573	162 818	16 64	15 91
Alaska	2	1			10	14	5	9	-	31
Hawaii	3	1	-	2	2	16	11	20	-	
Guam P.R.	*			*		2		4	-	
P.H. V.I.		1		-	96	226	84	260	*	1
Amer. Samoa	U	U	U	U	U	Ú	Ü	Ú	U	Ü
C.N.M.I.	*	U	*	U	-	U	37	Ü		ŭ

N: Not notifiable. U: Unavailable. No reported cases.
Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending December 14, 2002, and December 15, 2001 (50th Week)\*

	Legion	nellosis	Lister	iosis	Lyme	Disease	Mal	aria	Meas Tot	
Reporting Area	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
NITED STATES	1,147	1,064	568	581	17,473	14,813	1,199	1,414	36 <sup>†</sup>	1149
NEW ENGLAND Maine I.H. It. Mass.	107 5 7 36 35	73 8 12 5	58 5 4 3	56 2 4 3	5,958 111 244 35 1,297	4,429 113 18 1,157	66 6 7 4 27	100 5 2 1 52		1 3
1.1.	9	13	1	2	335	493	7	13		
Conn.	15 314	14	14	15	3,936 9,446	2,648	15 320	27 421	7	1 20
MID. ATLANTIC  Jpstate N.Y.  N.Y. City  J.J.  Pa.	102 60 28 124	255 67 43 24 121	160 56 34 32 38	105 27 25 20 33	4,887 168 1,716 2,675	8,063 3,500 62 2,006 2,495	44 206 36 34	63 247 65 46	1 6	4 7 1 8
E.N. CENTRAL Ohio nd. II. Vich.	261 119 24 84	308 140 21 24 79	79 26 12 12 22	85 15 8 24 24	108 75 20	716 43 24 31 21	130 24 14 30 46	170 26 16 69 39	3 1 2 -	10 3 4 3
Wis.	34	44	7	14	U	597	16 56	20	3	5
W.N. CENTRAL Minn.	61 17	47 9	19 5	21	456 359	393 318	17	37 6	1	3
owa Mo. N. Dak. S. Dak.	12 17 1 4	8 21 1 3	2 8 1	10	41 40 1 2	35 34	15 1	9	2	2
Nebr.	10	4	1	1	6	4	5	2	-	
Cans.	216	1	78	5 78	1.249	936	13 318	283	4	5
S. ATLANTIC Del. Md. D.C.	10 52 6	12 32 8	20	2	1,249 177 660 21	152 576 16	107 20	2 110 13		3
Va.	30	28	7	13	149	116	32	49	-	1
W. Va. N.C.	N 12	N 11	6	5	17 127	13 41	22	19	-	
S.C. Ga. Fla.	9 17 80	14 12 63	8 11 26	5 16 16	20 1 77	17	7 46 77	8 44 37	2 2	1
E.S. CENTRAL	47	57	20	22	49 22	69 23	20	36 14	12	2 2
Ky. Tenn. Ala. Miss.	21 18 8	12 28 13 4	11 4 1	8 7	24	30 9 7	3 5 5	12 6 4	12	-
W.S. CENTRAL	24	27	20	34	40	84	22	86	1	1
Ark.	4	7		1	3 4	1 8	2	3		*
La. Okla.	3	3	9	2			10	3	:	
Tex.	17	17	11	31	33	75	6	74	1	1
MOUNTAIN Mont.	50 3	56	30	38	19	13	48	63	2	2
ldaho Wyo.	2	3	2	1 2	4 2	5		3		1
Colo.	8	16	7	10	1		23	24		
N. Mex. Ariz.	14	3 20	3 14	7 9	1 3	1 2	3 12	3 16		1
Utah	15 5	7	3	2 7	7	1 3	5	4 9	1	
Nev. PACIFIC	67	61	104	142	148	110	219	218	4	64
Wash.	7	10	8	10	10	7	23	15	7.	15
Oreg. Calif.	N 59	N 45	9 79	12 114	16 119	13 88	11 175	17 172	3	39
Alaska Hawaii	1	1 5	8	6	3 N	2 N	2 8	1	1	7
Guam								1		
P.R. V.I.		2	1	*	N	N		5		1
Amer. Samoa C.N.M.I.	Ü	Ü	ū	U	Ú	Ü	Ü	Ü	Ú	U

N: Not notifiable.

U: Unavailable.

No reported cases.

Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

Of 36 cases reported, 23 were indigenous and 13 were imported from another country.

Of 114 cases reported, 60 were indigenous and 54 were imported from another country.

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending December 14, 2002, and December 15, 2001 (50th Week)\*

	Meningo Dise		Mun	nps	Pert	ussis	Rabies, Animal		
Reporting Area	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	
UNITED STATES	1,555	2,191	235	239	7,611	5,702	6,017	6.819	
NEW ENGLAND Maine N.H. /t. Mass. R.I. Conn.	87 8 14 4 41 5	107 6 14 6 56 6 19	7 4 2 1	2	715 17 57 146 456 13 26	658 22 28 75 506 6 21	886 59 48 89 295 72 323	725 67 21 61 273 70 233	
AID.ATLANTIC  Ipstate N.Y.  V.Y. City  A.J.  Pa.	151 44 23 27 57	244 68 42 43 91	25 6 2 17	27 3 12 4 8	482 352 13 1	351 138 57 23 133	1,127 681 23 182 241	1,282 766 37 193 286	
E.N. CENTRAL Ohio Ind. III. Mich. Wis.	202 74 32 36 44 16	347 91 41 83 81 51	38 14 2 14 7	27 1 3 16 5	902 420 145 154 58 125	835 305 90 102 146 192	148 39 32 31 46	158 52 15 24 47 20	
W.N. CENTRAL Minn. Iowa Mo. N. Dak. S. Dak. Nebr. Kans.	149 35 26 49 3 2 26 8	164 26 31 56 6 5 25	17 4 1 5 1	16 5 1 4	713 356 143 136 3 6 8	426 188 88 103 5 4 7	433 34 77 50 36 79	358 46 81 40 37 56 4	
S. ATLANTIC	269	332	23	42	387	264	2,463	2,395	
Del. Md.	7 9	6 41	5	8	4 59	50	53 352	30 491	
D.C. Va. W. Va. N.C. S.C. Ga. Fia.	41 4 32 30 28 118	40 14 62 32 53 84	4 2 3 2 7	8 5 7 9 5	2 140 32 43 43 14 50	1 56 4 73 33 23 24	498 169 697 140 375 179	478 137 561 111 389 198	
E.S. CENTRAL Ky. Tenn. Ala. Miss.	88 15 36 23 14	140 27 60 34 19	13 3 2 3 5	9 3 1	250 93 114 34 9	195 92 61 37 5	170 27 106 33 4	203 29 106 64	
W.S. CENTRAL Ark. La. Okla. Tex.	187 23 38 22 104	322 23 76 31 192	12	14 2	1,562 488 7 66 1,001	745 230 12 31	228 8 118	1,083	
MOUNTAIN Mont. Idaho Wyo. Colo. N. Mex. Ariz. Utah Nev.	93 3 5 - 24 4 31 6 20	96 4 8 5 37 11 16 8 7	19	15 1 1 2 3 2 1 1	1,266 9 148 11 423 183 340 104 48	472 1,368 36 170 1 361 136 549 76 39	102 290 19 38 18 59 7 125 13	1,014 253 38 28 28 11 128	
PACIFIC Wash. Oreg. Calif. Alaska Hawaii	329 63 45 208 4	439 63 59 301 3	81 N 65	87 2 N 44 1	1,334 439 188 685 5	860 164 52 588 15 41	272 13 235 24	36; 31; 4	
Guam P.R. V.I. Amer. Samoa C.N.M.I.	5	8 U		î Û	3 U	Ú	49 U	96	

N: Not notifiable. U: Unavailable. -: No reported cases.
\* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending December 14, 2002, and December 15, 2001 (50th Week)\*

	Booky I	Mountain		Rubella Congenital								
		d Fever	Rub	ella	Cong	enital pella	Salmor	ellosis				
Reporting Area	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001				
UNITED STATES	957	587	13	21	3	3	39,660	38,434				
NEW ENGLAND	9	3				-	2.105	2,265				
Maine							144	163				
V.H.		1					137	161				
/t. Mass.	5	2				*	73	80				
7.I.	4	2			*		1,150 163	1,299				
Conn.							438	423				
MID. ATLANTIC	40	32	1	8			4,992	5,055				
Jpstate N.Y.	9	2	1	1			1.510	1,194				
N.Y. City	9	2		6			1,408	1,284				
N.J.	2	9	*	1	*		712	1,151				
Pa.	20	19					1,362	1,426				
E.N. CENTRAL	19	16	1	2		1	5,130	4,822				
Ohio Ind.	13	2	-		*	1	1,371	1,304				
II.		12		2		*	495 1,556	505 1.349				
Mich.	3	1	1	-		-	851	853				
Wis.					4		857	811				
W.N. CENTRAL	99	68	*	3			2.566	2,223				
Minn.				-			577	618				
lowa	3	2	*	1			513	328				
Mo.	91	62		1			846	611				
N. Dak. S. Dak.	1	1 2	*	*	*		43	59				
Nebr.	4	1			1	1	105 150	146 153				
Kans.		-		1			332	308				
S. ATLANTIC	495	299	6	5		1	10,871	9,193				
Del.	4	12	1	3		1	94	9,193				
Md.	57	39		1	1		920	788				
D.C.	2	1		*	*		76	81				
Va. W. Va.	42	29	*		*	1	1,214	1,262				
N.C.	285	174					149 1,509	139 1,347				
S.C.	69	31		2			795	862				
Ga.	19	9					1,671	1,671				
Fla.	15	4	5	2			4,443	2,950				
E.S. CENTRAL	110	115	*	-	1	*	3,168	2,647				
Ky.	5	2		*			387	368				
Tenn. Ala.	81 20	79 18	*	*	1	*	797	641				
Miss.	4	16					861 1,123	738 900				
W.S. CENTRAL												
Ark.	163 97	42	1	1	1	*	3,496 1,037	4,925 898				
La.	-	2			1		770	815				
Okla.	61	31					492	471				
Tex.	5	*	1	1		*	1,197	2,741				
MOUNTAIN	14	11	1			*	2,182	2,146				
Mont.	1	1					89	73				
Idaho	5	1	*	*			159	136				
Wyo. Colo.	2	2 2				*	105 591	61 578				
N. Mex.	1	1					314	273				
Ariz.						*	545	619				
Utah	2	3	1				196	215				
Nev.	5	1	*		*	*	183	191				
PACIFIC	8	1	3	2	1	1	5,150	5,158				
Wash.		2	*				493	532				
Oreg. Calif.	3 5	1	3	1			342	270				
Alaska							3,967 77	3,960 48				
Hawaii				1	1	1	271	348				
Guam			-					24				
P.R.				3			201	892				
V.I.		2	*									
Amer. Samoa	U	U	U	U	U	U	U	U				

N: Not notifiable. U: Unavailable. -: No reported cases.
\* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending December 14, 2002, and December 15, 2001

	Shig	ellosis	Streptococo Invasive,			is pneumoniae, tant, Invasive	Streptococcus Invasive (	
Reporting Area	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	18,418	18,942	3,827	3,472	2,126	2,511	274	416
NEW ENGLAND Maine N.H.	326 12 13	301 6 7	173 20 35	219 12 N	18	124	3 N	47 N
Vt. Mass. R.I. Conn.	1 184 17 99	7 204 23 54	10 93 15	16 66 13 112	5 N 13	9 N 4 111	2 N 1	1 N 4 42
MID. ATLANTIC Upstate N.Y. N.Y. City N.J. Pa.	1,400 339 431 386 244	1,450 463 405 266 316	626 281 145 136 64	637 253 162 138 84	118 92 U N 26	166 159 U N 7	73 71 U N 2	111 111 U N
E.N. CENTRAL Ohio Ind, III, Mich, Wis.	1,794 661 104 672 185 172	4,293 2,872 220 606 299 296	735 202 48 196 288	761 192 60 250 208 51	242 78 159 2 3 N	173 3 170	118 29 63 N 26	126 59 67 N
W.N. CENTRAL Minn. Iowa Mo. N. Dak. S. Dak. Nebr. Kans.	978 221 123 193 16 156 179 90	1,906 420 358 306 21 627 100 74	238 125 42 3 13 18 37	362 171 72 17 12 39 51	424 292 N 5 1 1 29	159 72 N 11 6 4 25	57 57 N	62 53 N 9
S.ATLANTIC Del. Md. D.C. Va. W.Va. N.C. S.C. Ga. Fla.	6,911 384 1,200 58 986 12 550 120 1,299 2,302	3,011 17 151 54 513 8 352 247 666 1,003	716 2 141 9 71 19 113 35 116 210	563 4 N 22 78 20 139 13 180 107	1,073 3 N 54 N 46 N 185 182 603	1,326 6 N 11 N 40 N 272 414 583	8 N 1 N 7 U N N	922425322
E.S. CENTRAL Ky. Tenn, Ala. Miss.	1,469 194 128 810 337	1,686 801 113 208 564	108 18 90	113 38 75	124 17 107	233 26 206	N N N	N N N
W.S. CENTRAL Ark. La. Okla. Tex.	1,718 194 412 570 542	2,870 559 243 100 1,968	116 8 47 61	315 1 46 268	85 11 73 N	281 21 260 N	11 4 7	61
MOUNTAIN Mont. Idaho Wyo. Colo. N. Mex. Ariz. Utah Nev.	909 4 17 9 210 221 362 39 47	964 8 40 7 242 119 417 61 70	575 11 7 140 107 279 31	418 7 12 157 89 150 3	42 N 10 31	45 N 9 34	4 N  N 4	N
PACIFIC Wash. Oreg. Calif. Alaska Hawaii	2,913 174 116 2,553 6 64	2,461 209 112 2,076 7 57	540 65 N 378	84 N 	N N	4 N N	N N N	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Guam P.R. V.I. Amer. Samoa C.N.M.I.	8 U	49 20 U	N U	N U		-	N U	N U

N: Not notifiable. U: Unavailable. - : No reported cases.
\* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending December 14, 2002, and December 15, 2001

		Syph					Тур	
	Primary & S			enital	Tubero			ver
Reporting Area	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
NITED STATES	6,114	5,828	345	477	11,440	13,500	255	348
EW ENGLAND	134	65	1	8	386	441	14	18
aine	2	1		3	20	20	-	1
.Н.	8	1		•	17	16	*	2
t.	2	3 40	1	3	6 221	5 229	8	12
lass.	90 6	9	1	3	35	60		12
onn.	26	11		2	87	111	6	3
IID. ATLANTIC	666	514	69	72	2,023	2,210	61	111
pstate N.Y.	32	18	12	5	283	343	9	15
Y. City	413	272	23	32	1,029	1,098	32	48
al.	146	132	33	35	469	486	16	38
a.	75	92	1	•	242	283	4	10
.N. CENTRAL	1,063	1,029	61	67	1,146	1,387	19	34
hio	164	76	4	2	156	269	7	5
nd.	70	149	1	13	117 594	107	2	18
l. lich.	330 471	384 397	32 24	42 6	238	643 290	4	5
iicn. ∕iis.	28	23	-	4	41	78	5	4
	103	98		9	512	513	9	16
V.N. CENTRAL	53	33		2	216	214	3	7
owa	2	4			30	34		-
No.	27	25	*	5	126	137	2	9
I. Dak.					4	3	*	*
S. Dak.	2	1			11 23	13 32	4	
lebr. lans.	3 18	10 25		2	102	80	-	
			70		2,406	2,606	40	47
S. ATLANTIC Del.	1,649	1,920	78	111	15	15	40	1
Ad.	201	256	14	4	266	230	8	10
D.C.	64	41	1	2		51		*
/a.	66	102	1	5	279	266	7	11
V. Va.	2	4	40		28	28 387	2	3
v.C.	269 122	431 229	19	14 21	369 147	196	2	3
S.C. Sa.	346	379	10	23	393	481	4	12
la.	568	464	22	42	909	952	19	10
S. CENTRAL	441	639	22	38	703	801	4	1
(y.	87	46	3	1	124	122	4	
Tenn.	161	318	11	23	276	287		1
Ala.	150	137	4	5	200	256	*	*
Aiss.	43	138	4	9	103	136	-	-
W.S. CENTRAL	820	739	69	80	1,508	1,985	6	18
Ark.	33	46	2	9	119	150	*	*
La.	147	173 59	3	6	139	115 148	2	
Okla. Tex.	72 568	461	64	65	1,250	1.572	4	18
MOUNTAIN	293	227	15	34	355	537	10	9
Mont.	293	221	15	34	6	14	-	1
daho	9	1			9	7		
Nyo.	*	1	*		3	3	2	*
Colo.	46	22	1	1	56	124	5	1
N. Mex.	31	17	14	2 31	28 208	53 221	1	2
Ariz. Jtah	186	168 10	14	31	31	33	2	1
Vev.	13	8			14	82	2	4
PACIFIC	945	597	30	58	2,401	3.020	92	94
Wash.	59	50	2	50	228	225	6	6
Oreg.	26	13	1		103	114	2	8
Calif.	852	522	26	58	1,886	2,488	79	76
Alaska		-			48	50	-	1
Hawaii	8	12	1		136	143	5	3
Guam	*	11		1	*	63		3
P.R.	227	262	15	13	75	95		1
V.I. Amer. Samoa	1 U	Ü	Ü	Ū	Ü	Ú	Ú	U
C.N.M.I.	15	U		Ü	32	Ü	-	Ŭ

N: Not notifiable. U: Unavailable. -: No reported cases.

\* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

		All C	Causes, E	y Age (Y	ears)			50th Week)		All C	Causes, E	By Age (	Years)		
Reporting Area	All Ages	≥65	45-64	25-44	1-24	<1	P&I <sup>†</sup> Total	Reporting Area	All Ages	≥65	45-64	25-44	1-24	<1	P&I Tota
NEW ENGLAND	457	312	105	27	10	3	49	S. ATLANTIC	1,343	865	287	107	39	44	66
Boston, Mass.	143	91	32	13	7	*	13	Atlanta, Ga.	157	76	42	19	9	11	4
Bridgeport, Conn.	45	35	8	2			6	Baltimore, Md.	141	82	30	18	7	4	7
Cambridge, Mass.	13	8	4	1		*	3	Charlotte, N.C.	172	119	30	12	1	10	15
Fall River, Mass.	19	17	2				4	Jacksonville, Fla.	200	130	47	15	5	2	12
Hartford, Conn.	U	U	U	U	U	U	U	Miami, Fla.	111	77	27	5	1	1	4
Lowell, Mass.	24	13	8	2	1		2	Norfolk, Va.	55	40	6	3	1	5	3
Lynn, Mass. New Bedford, Mass.	17 39	13	3	1			1	Richmond, Va. Savannah, Ga.	64 53	34	10	9	4	1	2
New Haven, Conn.	29	19	6	1	2	1	2	St. Petersburg, Fla.	68	47	13	8	-	,	5
Providence, R.I.	U	U	U	Ú	ű	Ú	ű	Tampa, Fla.	223	169	37	8	7	2	10
Somerville, Mass.	5	4	1		-	-	-	Washington, D.C.	99	58	30	6	4	1	2
Springfield, Mass.	34	20	12	1		1	4	Wilmington, Del.	U	U	U	U	U	Ü	Ü
Waterbury, Conn.	34	25	6	2		1	1			200					
Worcester, Mass.	55	37	15	3	*		7	E.S. CENTRAL	1,012	693	192	76	24	27	90
					40	20	100	Birmingham, Ala.	204	146	38	12	5	3	22
MID. ATLANTIC	2,440	1,704	499	152	48	36	128	Chattanooga, Tenn. Knoxville, Tenn.	82 131	58 95	11 26	9	5	4	2
Albany, N.Y. Allentown, Pa.	62 20	16	3	3	2	1	3	Lexington, Ky.	93	65	16	5	3	4	11
Buffalo, N.Y.	94	61	25	3	4	1	12	Memphis, Tenn.	187	115	41	19	5	7	16
Camden, N.J.	24	17	3	4	**		2	Mobile, Ala.	91	64	15	9	1	2	4
Elizabeth, N.J.	30	21	7	2				Montgomery, Ala.	48	34	8	5	1	-	12
Erie, Pa.	59	50	4	2	2	1	-	Nashville, Tenn.	176	116	37	12	4	7	15
Jersey City, N.J.	47	29	12	5	1										
New York City, N.Y.	1.234	854	271	69	14	26	43	W.S. CENTRAL	1,625	1,062	326	142	51	44	96
Newark, N.J.	50	25	14	8	1	1	8	Austin, Tex.	88	60	16	6	2	4	13
Paterson, N.J.	26	13	3	6	4		1	Baton Rouge, La.	80	61	13	6		1	3
Philadelphia, Pa.	366	235	95	24	11	1	19	Corpus Christi, Tex. Dallas, Tex.	66 219	49 134	10	6 18	2		2
Pittsburgh, Pa.	38	26	8	3	-	1	5	El Paso, Tex.	103	78	15	6	4	5	2
Reading, Pa.	23	20	1	2		*	4	Ft. Worth, Tex.	155	99	32	13	4	7	13
Rochester, N.Y.	136	105	21	5	4	1	7	Houston, Tex.	314	171	64	39	21	19	20
Schenectady, N.Y.	25	21	1	2	1	*	3	Little Rock, Ark.	90	55	21	9	4	1	3
Scranton, Pa.	24	17	5	2	-	*	3	New Orleans, La.	U	U	Ü	ŭ	Ü	U	U
Syracuse, N.Y.	106	86	10	6	3	1	6	San Antonio, Tex.	296	198	58	29	8	3	18
Trenton, N.J.	27	20	5	1	1	*		Shreveport, La.	63	46	11	1	3	2	5
Utica, N.Y. Yonkers, N.Y.	18 31	14 25	3 2	1 4	-	*	3	Tulsa, Okla.	151	111	26	9	3	2	17
								MOUNTAIN	860	610	150	71	18	11	67
E.N. CENTRAL	2,139	1,434	483	133	50	39	133	Albuquerque, N.M.	129	90	23	8	6	2	9
Akron, Ohio	58 50	38 39	15	2	1	2	2	Boise, Idaho	39	28	8	2	-	1	4
Canton, Ohio	366	226	10 91	33	11	5	6 23	Colo. Springs, Colo.	53	35	10	4	3	1	3
Chicago, III. Cincinnati, Ohio	300	220 U	U	U	U	U	U	Denver, Colo.	U	U	U	U	U	U	U
Cleveland, Ohio	131	85	28	13	2	3	7	Las Vegas, Nev.	295	203	60	27	4	1	19
Columbus, Ohio	182	113	45	12	6	6	17	Ogden, Utah	29	22	3	3	1		-
Dayton, Ohio	139	97	33	4	2	3	7	Phoenix, Ariz.	U	U	U	U	U	U	U
Detroit, Mich.	204	118	55	16	11	4	11	Pueblo, Colo.	29	20	5	4	*	-	4
Evansville, Ind.	82	59	20	1	2		10	Salt Lake City, Utah	111	80	16	9	2	4	16
Fort Wayne, Ind.	87	61	16	6	1	3	2	Tucson, Ariz.	175	132	25	14	2	2	12
Gary, Ind.	14	6	2	5	1	*	1	PACIFIC	1,724	1,228	334	81	33	48	125
Grand Rapids, Mich.	52	37	13	*	2	*	4	Berkeley, Calif.	23	15	6		1	1	2
Indianapolis, Ind.	225	145	54	14	7	5	8	Fresno, Calif.	146	110	31	3	*	2	11
Lansing, Mich.	62	48	12	2	*	*	7	Glendale, Calif.	9	5	1	1	-	2	1
Milwaukee, Wis.	123	89	26	7	1	-	8	Honolulu, Hawaii	100	72	18	5	1	4	6
Peoria, III.	62	47	12	2	-	- 1	2	Long Beach, Calif.	48	30	14	1	2	1	6
Rockford, III.	53	37	13	2	1	*	8	Los Angeles, Calif.	296	191	66	17	10	12	18
South Bend, Ind.	66	49	10	5	1	1	2	Pasadena, Calif.	27	22	4	1	-		3
Toledo, Ohio Youngstown, Ohio	114 69	88 52	17	4	1	5	5	Portland, Oreg.	170	119	38	8	2	3	6
	-							Sacramento, Calif. San Diego, Calif.	204 171	155 123	31 25	7	5 7	10	15
W.N. CENTRAL	673	459	144	38	19	13	60	San Francisco, Calif.	U	123	25 U	U	Ú	U	13
Des Moines, Iowa	106	79	19	2	3	3	8	San Jose, Calif.	203	163	28	10	0	2	23
Duluth, Minn.	39	31	5	3	×	*	4	Santa Cruz, Calif.	26	16	7	3		-	2
Kansas City, Kans.	44	23	16	5	-	*	3	Seattle, Wash.	113	73	28	8	2	2	7
Kansas City, Mo.	100	62	25	5	4	4	5	Spokane, Wash.	61	45	12	3	1	-	-
Lincoln, Nebr.	48	31	9	7	1		9	Tacoma, Wash.	127	89	25	8	2	3	
Minneapolis, Minn.	77	48	14	7	5	3	6								
Omaha, Nebr. St. Louis, Mo.	86 U	61 U	20 U	2 U	2	1	9	TOTAL	12,2731	8.367	2,520	827	292	265	814
St. Louis, Mo. St. Paul, Minn.	65	51	11	2	U	1	U 6								
Wichita, Kans.	108	73	25	5	4	1	10								

U: Unavailable. -:No reported cases.

V: Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of ≥100,000. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

Preumonia and influenza.

Pecause of changes in reporting methods in this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

Total includes unknown ages.

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